GRADUATION:
The Measure of Tomorrow
Best Practice in Measuring Treatment Integrity in the Classroom

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School Psychology

Session Objectives

- Provide an overview of the Treatment Integrity (TI)/fidelity literature.
- Report the results of the primary authors research on TI.
- Provide attendees with some examples of fidelity measures used and the limitations.
- Attendees will be provided a fidelity measure they could pilot.

According to NASP

The documentation of instructional integrity/fidelity is *necessary* and it needs to be present when evaluating interventions

NASP 2005 “Position Statement on Prevention and Intervention Research in the Schools,” NASP 2006 “School Psychology: A Blueprint for Training and Practice III”

Instructional Integrity Defined

- The degree to which an intervention or instruction is delivered as planned with accuracy and consistency
- Instructional integrity measures the difference between what is expected in the curriculum/intervention design and what is actually executed in the class/session
- Also referred to as fidelity, intervention integrity, treatment integrity, and/or procedural reliability

Instruction → Intervention→ Treatment

Integrity → Fidelity

- ***Research-Based****:* can refer to a single study that has not been replicated, designs that do not allow evaluation of cause and effect, small numbers, no controls, etc. Thus, no *generalizability*
- ***Evidence-Based Practice****:* With EBP we are concerned with the *type* and *magnitude.*

  Type – refers to the systemic way researchers apply an intervention and measure its effectiveness. Typically, studies demonstrate cause-and-effect by using randomized controlled trials that are well designed and implemented.

- Magnitude – refers to the amount of studies that show a strong, positive cause-and-effect relationship between the intervention and improved academic or behavioral outcomes.

The ABCs of Evidence-Based Practices

- A = Access evidence-based practices
- B = Be careful with fidelity – when applied to instruction, fidelity means adhering to the details of the practice or program that make it work
- C = Check student progress

Figure 2. 10-Step Evidence-Based Practice (EBP) Implementation Process Checklist

Process	Steps
1. Determine student, environmental, and instructor characteristics	❒ Identify age/grade level(s) of students ❒ Identify area of student need ❒ Review teacher, class, and school variables o Teacher's expertise/ability to implement new strategies o Teacher's philosophy/style and alignment to instructional methods o Schedule/available class time o Additional personnel o Additional resources/funding
2. Search sources of EBPs	❒ Search available sources for EBPs ❒ Review potential EBPs to implement
3. Select an EBP	❒ Cross-reference EBP to student need and instructor ability ❒ Determine cost and available funding if applicable
4. Identify essential components of the selected EBP	❒ Locate implementation fidelity checklist if available *If not available:* ❒ Identify and list essential components of EBP ❒ Create an implementation fidelity checklist
5. Implement the EBP within a cycle of effective instruction	❒ Plan a known lesson with compatible objectives ❒ Follow step-by-step instructions or implementation fidelity checklist to ensure critical components are included in step-by-step lesson plan ❒ Identify and create all necessary materials ❒ Embed EBP within effective instruction, which includes: o Pace appropriately o Preview instruction o Review previous instruction o Monitor student performance o Circulate and scan instructional environment o Recognize appropriate behavior o Exhibit enthusiasm o Display awareness of what is happening o Use wait time after questioning
6. Monitor implementation fidelity	❒ Utilize implementation fidelity checklist to self-assess implementation fidelity ❒ Request observation and feedback using implementation fidelity checklist
7. Progress monitor student outcomes	❒ Select or create a progress monitoring tool. o Consider commercially or freely available Curriculum Based Measurements (CBM) ❒ Consistently collect data on students' progress ❒ Analyze data and evaluate effectiveness
8. Adapt the practice if necessary	❒ Are all student outcomes increased with the use of the EBP? *If yes, no adaptations are necessary. If not:* ❒ Review implementation checklist and request additional observation ❒ Is implementation fidelity optimal? *If no, try implementing again with fidelity. If yes:* ❒ Plan adaptations while maintaining integrity of the essential components
9. Make instructional decisions based on progress-monitoring data	*If adaptations have been implemented:* ❒ Consistently collect data on students' progress ❒ Analyze data and evaluate effectiveness
10. Become a leader and an advocate	❒ Identify colleagues interested in implementing EBPs ❒ Celebrate EBP successes and lessons learned ❒ Share EBP implementation results and materials ❒ Create peer mentoring/coaching community ❒ Build a Community of Practice

Table Talk

- What stage of MTSS implementation is your county in?
- How would you define Treatment Integrity/Fidelity?
- How does your county document Treatment Integrity/Fidelity of interventions?
  - How often?
  - At what tier?
- How often are interventions progress-monitored?
  - By whom?
- Who in your system does TI fidelity checks?
- What do you hope to walk away with from the session?

Influence of Current Policy and Practice

- NCLB and IDEIA 2004 require schools to utilize research-based instructional programs, materials, assessments, and professional development
- What Works Clearing House provides education consumers with ongoing, high-quality reviews of the effectiveness of replicable educational interventions
- The Task-Force on Evidence-Based Interventions in Schools promotes the use of evidence-based interventions (EBI) in the fields of psychology and education

Evidence-Based Practice for Teachers

- Why do teachers need to know Evidence-Based practice? (Kretlow & Blatz, 2011) Council for EC

  Federal laws like NCLB & IDEIA require teachers to use evidence based practices.

- Are Scientifically Based, Research-Based, and Evidence-Based the same*?*

- ***Scientifically Based Research****:* It describes the methods used to test instructional practices (a) systematic cause-and-effect research design using observable, measureable outcomes; (b) replication by other scientists; (c) approval by a panel of independent experts before publication (peer review).

Influence of RTI

- In the problem-solving model, **important decisions** regarding students' educational remediation **are based upon the evaluated effectiveness of research-based interventions** (Duhon, Mesmer, Gregerson, & Witt, 2009)

- The integrity must be examined in order to **appropriately judge the reliability** of the outcome data (Brown-Chidsey, 2007)

- **When the integrity is compromised, the effectiveness of the intervention is uncertain**; therefore, significant education decisions regarding students' eligibility may not be well informed.

Why is it Important to *Measure* Instructional Integrity?

- Many failures of education reforms and practices can be attributed to poor implementation (Gresham, 1989)
- Outcomes cannot be attributed to the intervention unless one measures the extent to which the intervention plan was implemented and only then are we able to assume the instruction/intervention will work with others
- Without documentation of integrity, inferences about student response and decisions become *nothing more than uninformed guesses* (Duhon, Mesmer, Gregerson, & Witt, 2009)
- "…students and their families have the right to expect that interventions will be implemented with precision and that objective documentation will demonstrate student progress" (Brown-Chisdey, 2005)

Lack of TI Measurement in the Education Field

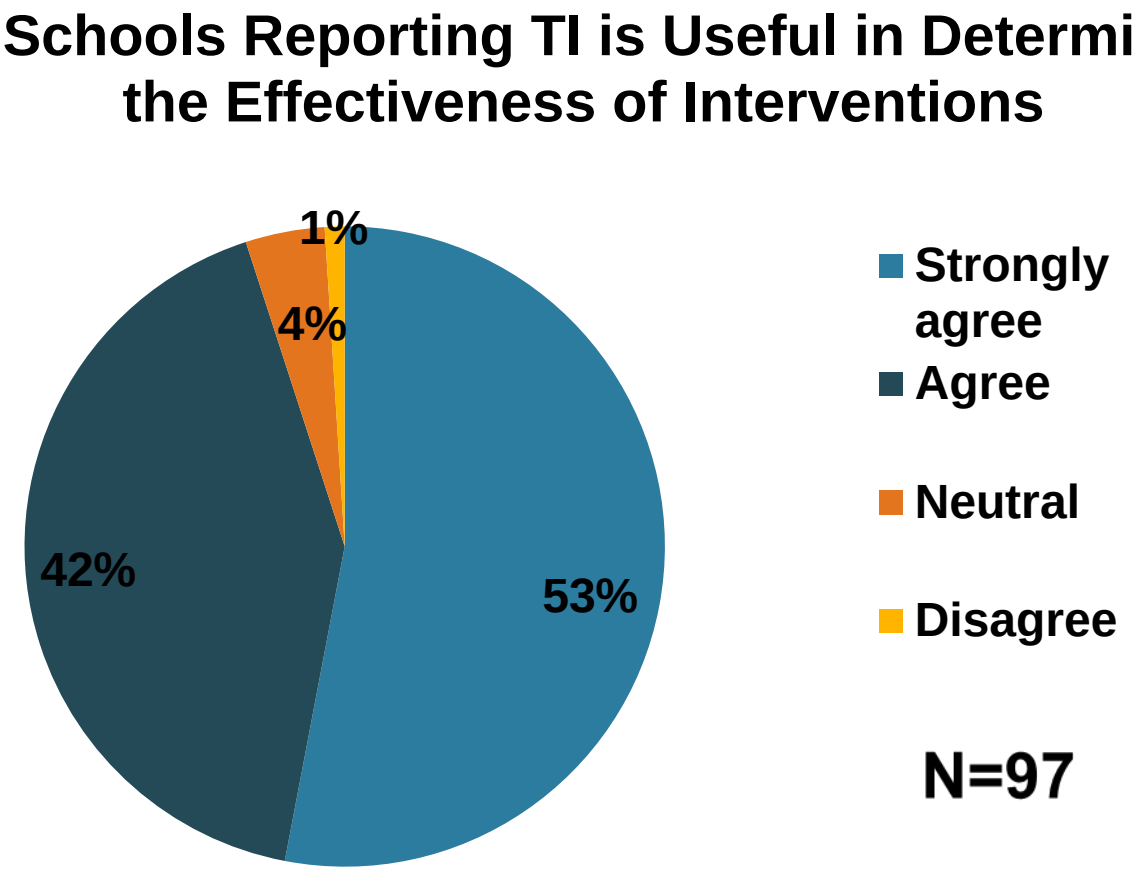
- "Fidelity of implementation or treatment integrity requires that teachers provide instruction and progress monitoring according to the research-based method prescribed or to a best-practice protocol (Bianco, 2010)."
- Research indicates that without ongoing (consultative) support, many teachers implement interventions with low-to-moderate and variable levels of treatment integrity (Noell et al., 2005).
  - Even further, a research study found that the issue of teachers conducting interventions with low levels of treatment integrity arises only a few (as soon as 5) days after training and performance feedback (Mortenson & Witt, 1998).
- Treatment integrity is not regularly assessed in applied settings (Cochrane & Laux, 2008)

Overview of Research

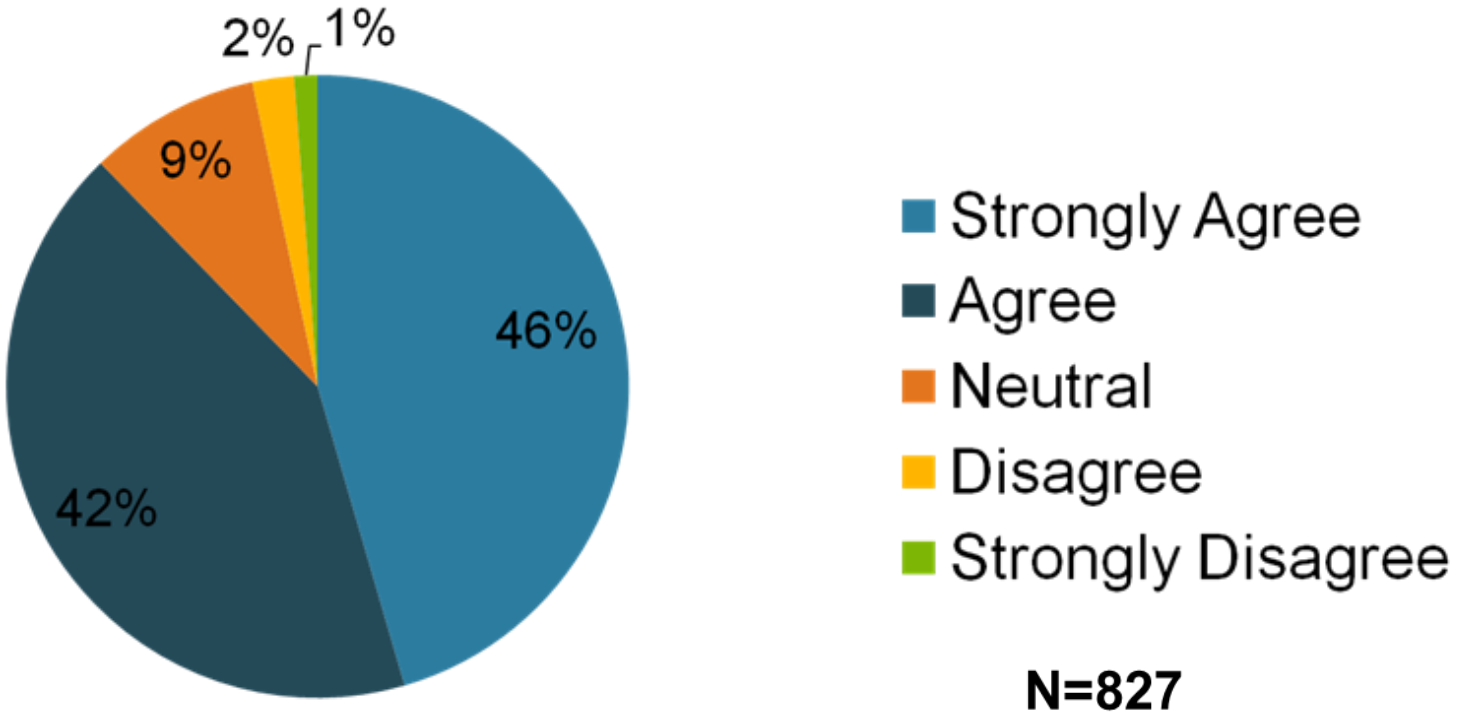
- **Purpose**
  - To identify integrity measurement procedures in NC, FL, SC, TN, & VA
  - Investigate educator beliefs regarding TI, as well as the degree of TI measurement occurrence
- **Participants**
  - NC, FL, SC, TN, & VA school psychologists, EC directors, general education and special education teachers
- **Materials**
  - Web-based surveys
- **Data analysis**
  - Descriptive statistics
  - Correlations
  - T-tests
  - One-way ANOVA

- Exceptional/Special Education Directors and School Psychologists are most knowledgeable about integrity and recognize its importance ($F(3, 158) = 19.29$, $p < .01$)
- Teachers do not necessarily believe that measuring and monitoring integrity levels will improve core instruction ($F(3, 158) = 14.77$, $p < .01$)

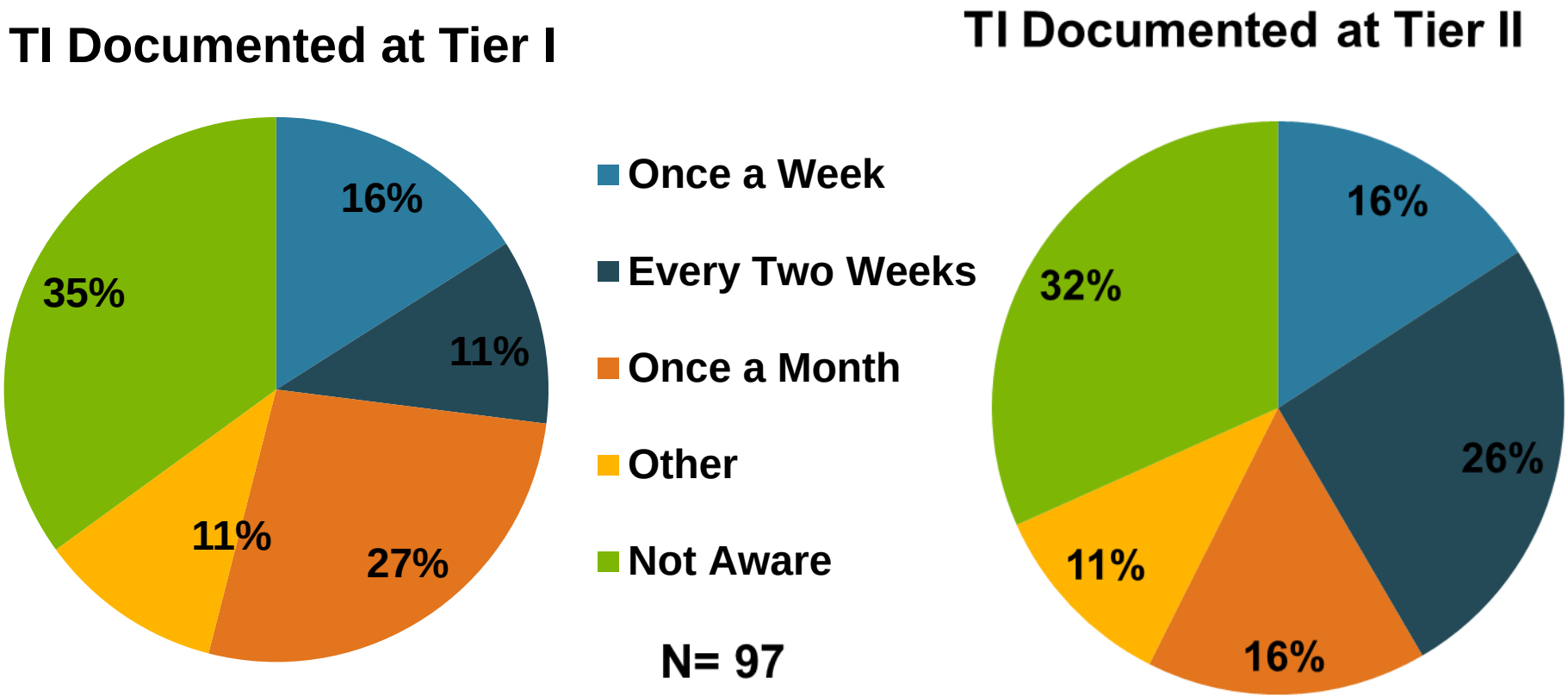
RtI/MTSS Schools Believe Implementing Interventions with Integrity is Important



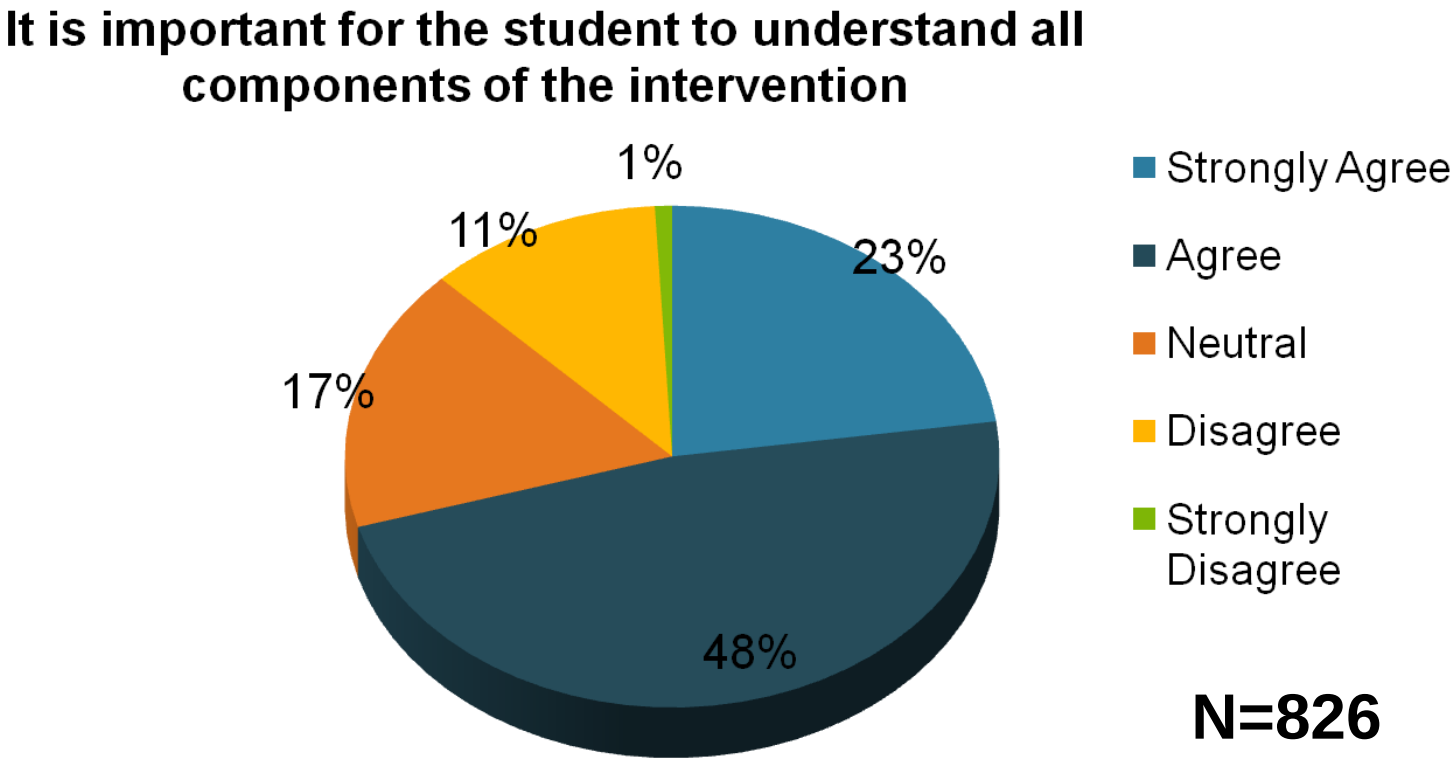
Respondents will support that TI is a critical component to Response to Intervention



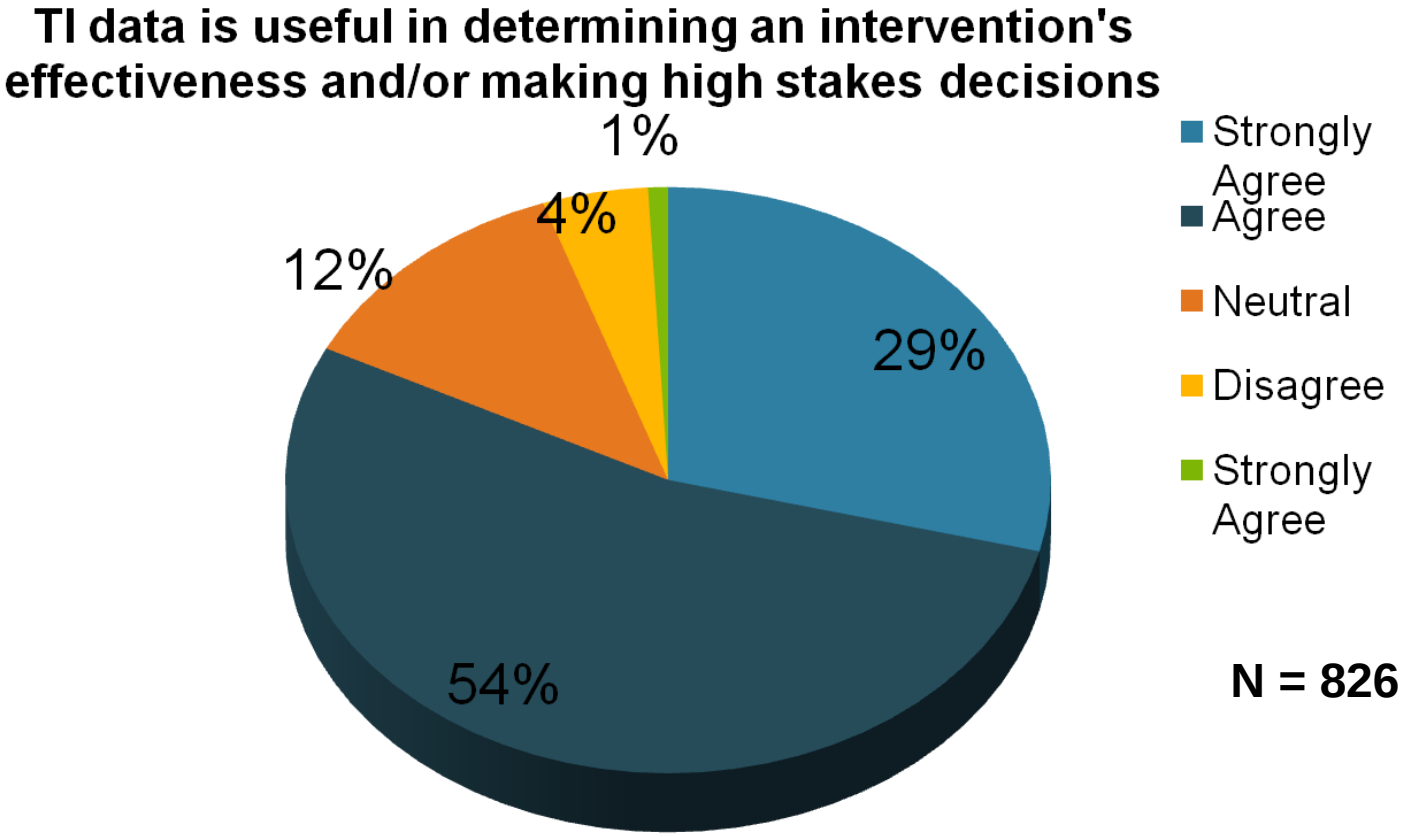
TI in Tier I and Tier II will be reported as documented less than once a month



A higher percentage of respondents will support the importance of students understanding all of the components of an intervention

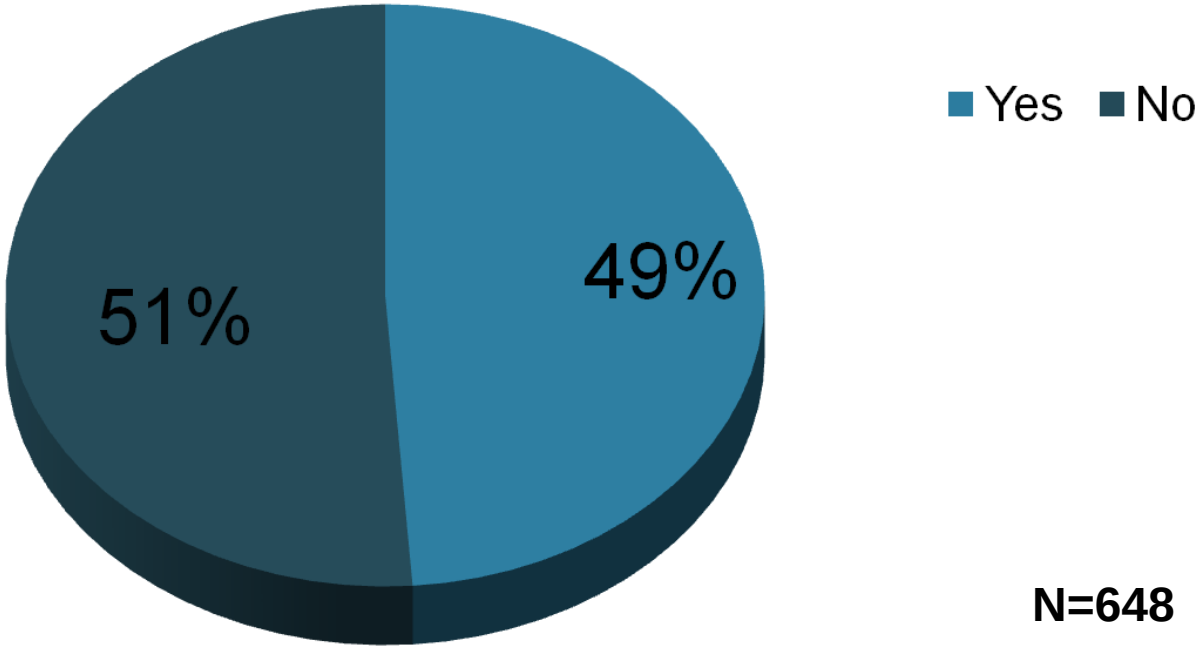


A higher percentage of respondents will report TI data is useful in evaluating the effectiveness of the intervention to move through the tiers



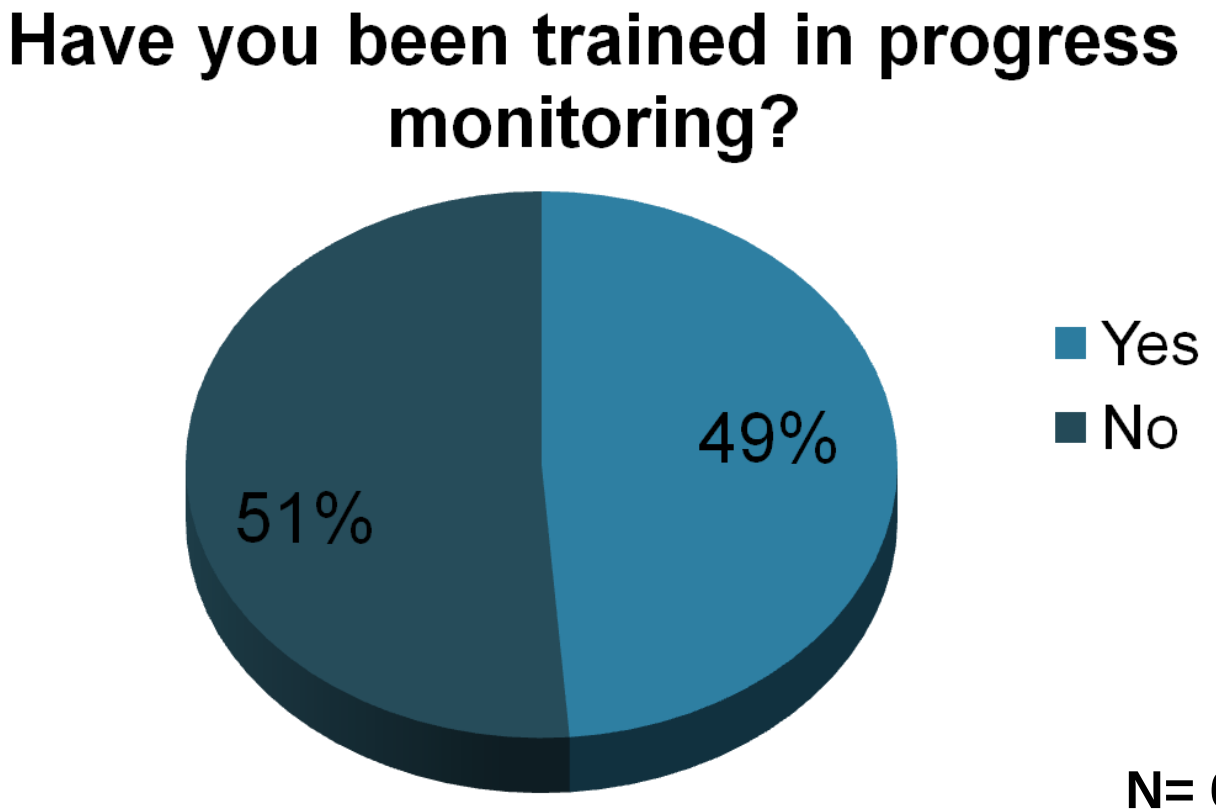
Fewer respondents will report progress-monitoring every intervention

Does your school progress monitor all scientific, research-based interventions?



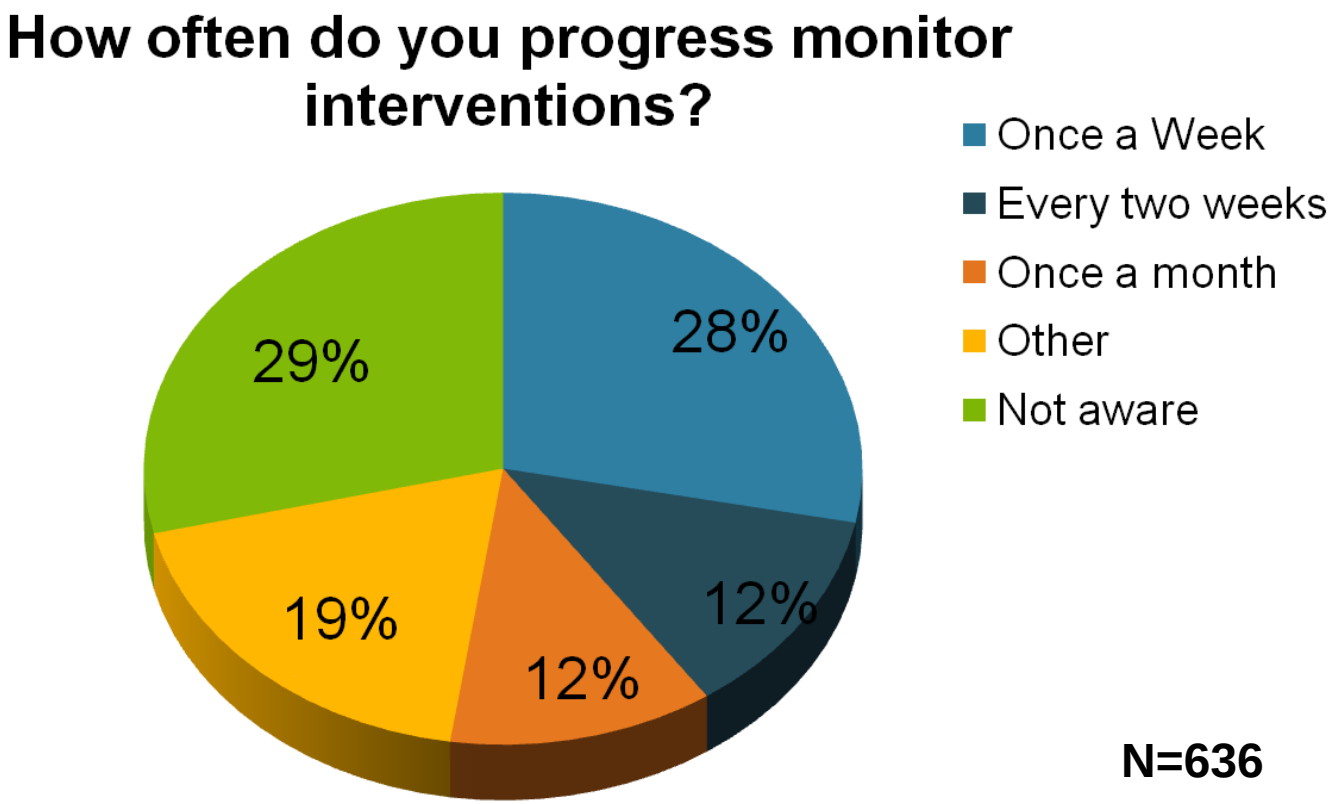
N=648

Very few respondents will report being trained to do progress-monitoring



N= 638

Very few respondents will report being trained to do progress-monitoring



N=636

Discussion

- Results indicate lack of TI use (67.3%) to document if the EBI was implemented consistently and with fidelity
- NC EC Directors indicated TI was a more critical component to RtI than school psychologists, special, or regular education teachers
- Only (61%) of school professionals reported progress-monitoring ***all*** interventions
- 91% of special education teachers had *no* training in Math Foundations and 59% reported having *no* training in Reading Foundations

In general, interventions implemented with higher degrees of integrity produce better student outcomes

(Schulte, Easton, & Parker, 2009; Noell, Gresham, & Gansle, 2002)

To what Degree is Enough?

Can an intervention be modified and still be effective?

- No standard degree of integrity implementation has been identified as applicable to all interventions
- Not all intervention components are equivalent
- However, treatment effects may still be apparent with 80% or lower fidelity
- *Rule of Thumb*: When integrity of the EBI is measured in percentages, the higher the better

Factors Contributing to Better Student Outcomes

1. Integrity of implementation of the process (at the school level)
2. Degree to which the selected intervention is empirically supported
3. Integrity of intervention implementation (at the teacher level)

Research Center on Learning Disabilities (2006)

Increasing Integrity Levels

- Acceptability of the intervention
- Direct training
- Treatment manuals or intervention scripts
- Performance based feedback
- Coaching
- Graphing intervention and TI data

Performance Feedback

- Many teachers require continual support to implement interventions consistently. (Sanetti, Fallon, & Collier-Meek, 2012)
- School personnel perform observations or review permanent products and provide graphed or verbal feedback.
- Research generally shows that it has a positive effect on teacher TI. (Solomon, Klein, & Politylo, 2013)

Coaching

- Teacher and coach work together to:
  - Assess classroom needs
  - Develop and implement a plan
  - Evaluate the effectiveness of the practices
- Teachers receive modeling, prompting, and performance feedback
- Research suggests that this is an effective method for improving TI

(Sutherland, Conroy, Vo, & Ladwig, 2014)

Direct Observation

- May include checklists or Likert scales completed by the observer(s)
- Often used for behavioral interventions (Solomon, Klein, & Politylo, 2013)
- Can be a reliable measure, but is not always practical due to time and resources required. (Sutherland, McLeod, Conroy, & Cox, 2012)

Self-Report

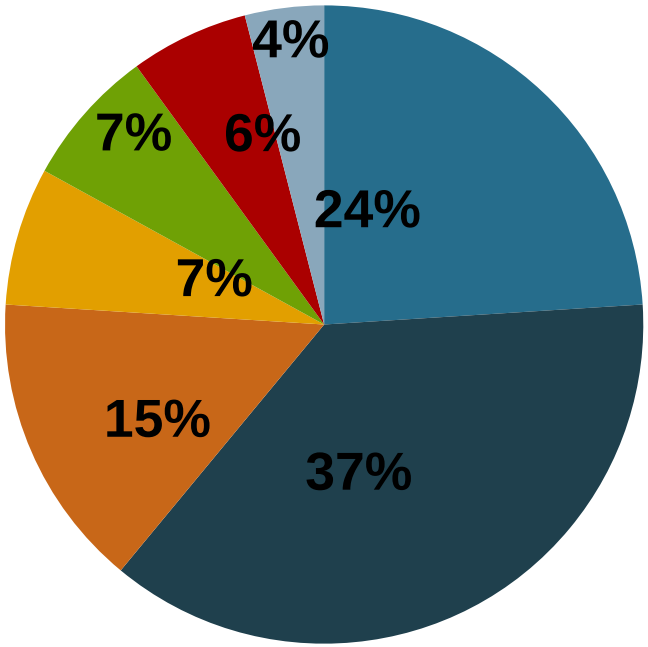
- Can be verbal (in a meeting) or written, daily or weekly
- The teacher may use yes/no checklists or Likert scales (Sutherland, McLeod, Conroy, & Cox, 2012)
- Self-report measures tend to be subjective, but have been shown to increase TI in preliminary studies (Sanetti, Chafouleas, Keeffe, & Kilgus, 2013)

Permanent Products

- Produced during an intervention and reviewed by a third party
- Typically include worksheets or forms completed by the student or items used in instruction (Sanetti, Fallon, & Collier-Meek, 2012)
- Requires an intervention that produces sufficient permanent products, as well as time to review the products (Sanetti, Chafouleas, Keeffe, & Kilgus, 2013)

Direct Methods	•Objective •Accurate •BUT… cause reactivity •Not always appropriate
Indirect Methods	•Less intrusive •More feasible •BUT… are subjective

Most Frequent Method Used to Document TI



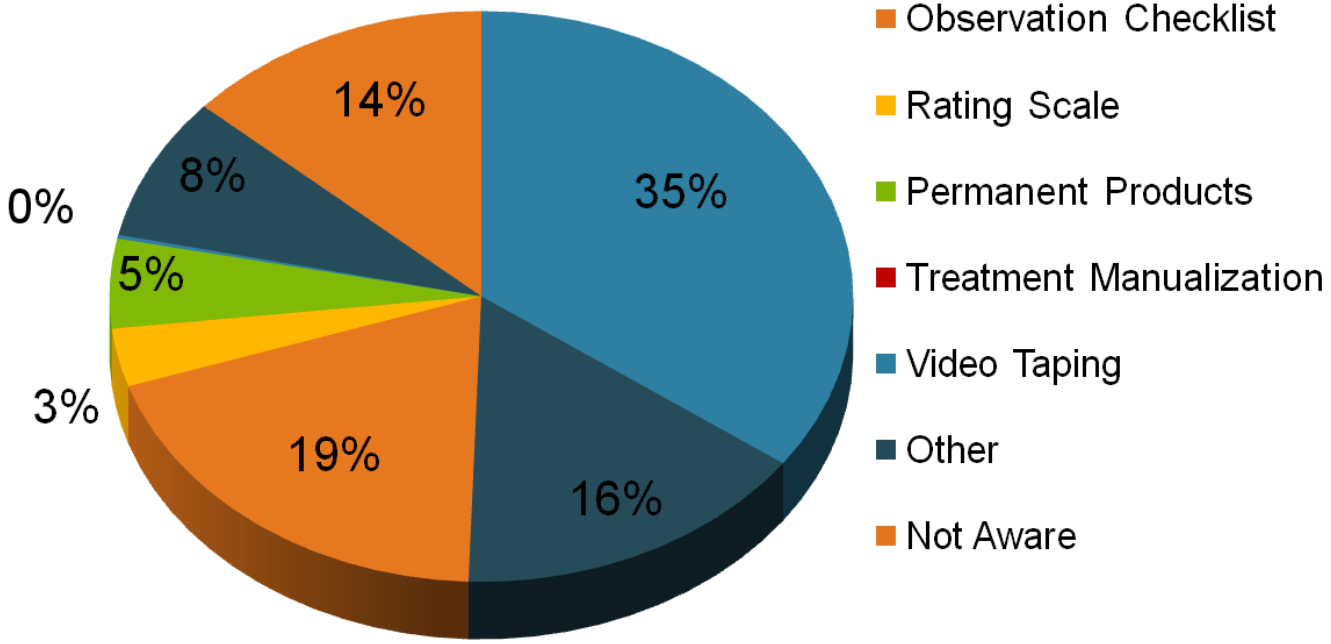
Teacher Self-Report Checklist
Direct Observation
Observation Checklist
Rating Scale
Permanent Products
Other
Not Aware

N=54

Deni, J. et al. (2012)

A greater percentage of the respondents will report using direct observation as the primary method of documenting TI in their school/school system

What is the primary method of TI documentation used in your school/school system?



N= 454

Documentation Examples

Self Report Rating Scale

SET UP				
Area	*Level of Implementation*			*Comments*
Materials and Time				
▪ Teacher and student materials ready	2	1	0	
▪ Teacher organized and familiar with lesson	2	1	0	
INSTRUCTION/PRESENTATION				
▪ Follows steps and wording in lessons	2	1	0	
▪ Uses clear signals	2	1	0	
▪ Provides students many opportunities to respond	2	1	0	
▪ Models skills/strategies appropriately and with ease	2	1	0	
▪ Corrects all errors using correct technique	2	1	0	
▪ Provides students adequate think time	2	1	0	
▪ Presents individual turns	2	1	0	
▪ Moves quickly from one exercise to the next	2	1	0	
▪ Maintains good pacing	2	1	0	
▪ Ensures students are firm on content prior to moving forward	2	1	0	
▪ ***Completes all parts of teacher-directed lesson***	2	1	0	

Observation Checklist

Procedural Integrity Recording

Students_____ Date_____

Coach_____ Player_____

Setup

Used playing board: yes / no Placed cards on start square: yes / no

Recorders in designated spots: yes / no Correct score sheet: yes / no

Pressed play on player: yes / no Pressed record on recorder: yes / no

Correctly set timer for 5 min: yes / no Correct tapes in correct recorders yes/no

Card Presentation

Presented correct card (coach)	Correct scoring on sheet (player)	Praise (coach)	Placed card on stop square (coach)
Yes No	Yes No N/A	Yes No N/A	Yes No
Yes No	Yes No N/A	Yes No N/A	Yes No
Yes No	Yes No N/A	Yes No N/A	Yes No
Yes No	Yes No N/A	Yes No N/A	Yes No
Yes No	Yes No N/A	Yes No N/A	Yes No
Yes No	Yes No N/A	Yes No N/A	Yes No
Yes No	Yes No N/A	Yes No N/A	Yes No

Self Report Checklist

Treatment Integrity Checklist

Cognitive Behavior Modification Plan

Student: -- Teacher: -- Grade Level: --

Directions: Please complete this form each day. Record a "Y" if the component was implemented; if the component was not implemented, record an "N".

Intervention components	Day
	M T W T F
1. Reviewed behavioral goal(s) with student.	Y Y Y Y Y
2. Cued student to self-monitor and record response.	Y Y Y Y Y
3. Compared ratings with student.	Y Y N Y Y
4. Provided verbal praise for accurate ratings.	Y Y Y N Y
5. Gave reward when behavioral goal was met.	Y N N N Y
6. Sent behavior recording form to parent.	N Y N N N

Note. Adapted from "Monitoring Treatment Integrity: An Alternative to the 'Consult and and Hope' Strategy in School-Based Behavioral Consultation," by Lee A. Wilkinson, 2006, School Psychology International, 27, p. 431. Copyright 2006 by Sage Publications. Adapted with permission.

Observation Likert Rating

FACTORS OF IMPLEMENTATION CHECKLIST - OBSERVATIONS

Please circle the number to indicate the level of implementation for each element of complexity that occurred during the intervention.

Not at all Implemented	1	2	3	4	5	6	Implemented Completely

Complexity of the Treatment Elements and Definitions						
Objectives:						
a. It has been explained to the student what he/she should be able to do.	1	2	3	4	5	6
b. It has been explained to the student what he/she should understand.	1	2	3	4	5	6
c. It has been explained to the student what he/she should care about as a result of the teaching.	1	2	3	4	5	6
Standards:						
a. There has been an explanation of the type of lesson to be presented.	1	2	3	4	5	6
b. There has been an explanation of the type of procedures to be followed.	1	2	3	4	5	6
c. There has been an explanation of the behavioral expectations related to the intervention.	1	2	3	4	5	6
d. There has been an explanation of what knowledge or skills are to be demonstrated.	1	2	3	4	5	6

TIPS Team Implementation Fidelity Check

School: _____

Item	Data Source & Criterion	Score for each item: Implemented=2, In Progress=1, Not Implemented=0 Meeting Date		
1. Roles & responsibilities were defined	Facilitator, Minute Taker, Data Analyst identified and available Documented on "Roles & Responsibilities Matrix"			
2. Purpose of meeting was clear	Written purpose statement Agenda			
3. Meeting started on time	Direct observation/meeting minutes Meeting starts within 10 minutes of scheduled time			
4. Meeting ended on time, or we agreed to extend meeting time	Direct observation/meeting minutes Meeting ends within 10 minutes of scheduled time			
5. At least 75% of team members (including an administrator) were present for the meeting	Meeting minutes, team roster, direct observation Number of regular members attending meeting, of total			
6. Public agenda format was used to define topics and guide meeting discussion	Written agenda for current meeting (items on board, paper, computer)			
7. Previous meeting minutes were reviewed at start of meeting	Direct observation Team reviewed task status from previous meeting			
8. Status of previous solutions were reviewed	Direct observation Team reviewed solution status from previous meeting			
9. Quantitative data were reviewed	Direct observation Team reviewed numbers/charts during problem-solving			
10. Problems were defined with precision (what, where, when, by whom, why)	Documentation on meeting minutes All five elements are defined			
11. Problem solving resulted in defined solutions	Solutions to implement are documented			
12. If at least one solution was developed, an action	Who is doing what by when is documented for at least			

Adapted from: Newton, J.S., Todd, A.W., Algozzine, K., Horner, R.H., & Algozzine, B. (2009). The Team Initiated Problem Solving (TIPS) Training Manual. Educational and Community Supports, University of Oregon, unpublished training manual.

plan was defined for the solution	one identified solution			
13. Measure & schedule were defined to monitor fidelity of solution implementation	Documented on meeting minutes Fidelity of implementation monitored on a regular cycle			
14. Measure & schedule were defined to monitor outcomes of solution implementation	Documented on meeting minutes Student behavior/performance monitored on a regular cycle			
15. Next meeting was scheduled	Documented on meeting minutes			
16. Plan exists for distributing Meeting Minutes to all team members	All team members receive meeting minutes within 24 hours of meeting			
	Total Points:	___/32	___/32	___/32
	Percent Implemented:			

Observation Checklist

Treatment Integrity Observation Checklist – Language Interventions

Student: Hattie
Teacher: Mrs. F.
Grade: Kindergarten
Date of Intervention Initiation: October 2, 2002
Treatment Integrity Schedule: School Psychologist – observe 1x/week

Intervention 1: Repetition of directions

____ 1. Teacher poses directive to Hattie or class
____ 2. Teacher requires Hattie and/or class to repeat directions
____ 3. If classroom directive was posed, teacher requires choral responding or directions repeated.
____ 4. If Hattie does not respond within choral responding, teacher asks her to individually repeat directions
____ 5. Teacher emphasizes various WH- questions within directions and repetition of directions by increased vocal volume
____ 6. Teacher has children chorally respond to WH- questions to check for understanding of a directive.
____ 7. If Hattie does not respond within choral responding, teacher asks her to individually answer WH- question
____ 8. Positive reinforcement (e.g., verbal praise, small tangible, etc.) offered for correct responding

% of Steps Completed = _____

Program Treatment Integrity

- Protocols built into programs
  - Lesson plan checklists
  - Principal walk through
  - Program fidelity checklist

Program Fidelity Checklist

- Helps to identify needs, support instruction and provide oversight instruction for best practices
  - Teaching staff intervention model and training
  - Student assessment and placement
  - Lesson scheduling
  - Lesson set up
  - Student pacing and progress
  - General lesson procedures

Programs with Fidelity Checklists

- Fast Track Phonics
- SRA Corrective Reading Decoding Program
- Wilson Reading System
- Read Naturally

Instructional Delivery	Observed	Not Observed	Comments
Group Size not more than 12			
Word Attack Skills (sound identification &/or word list reading) Start Time for Word Attack: **Pacing of Word Attack: about 10 minutes**			
Group Choral Responses			
Signals for Oral Exercises: Hand-Drop (not in every lesson)			
Signals for Choral Responses: Verbal (i.e. "What word?") &Tapping			
Individual Turns - oral reading of a row or column			
Error Correction: 'The word is ___. What word? ___ Spell ____. _ _ _ _ What word? ____ Start again." (at beginning of row or column)			
Errors recorded by student names (on clipboard chart)			
Specific Positive Feedback after each row/column or numbered part			
End Time for Word Attack:			
Group Reading (fast word reading [Level A], sentence, or story reading) Start Time for Group Reading: **Pacing of Group Reading: about 10-15 min.**			
Individual Turns - oral reading of only 1 or 2 sentences each			
Error Correction: 'The word is ___. Touch under the word. What word? ____ Yes, _____. Start again." (at beginning of that sentence)			
Errors recorded by student names (on clipboard chart)			
Specific positive feedback after each part (numbered paragraph)			
Quickly paced comprehension questions after each part (not Level A)			
End Time for Group Reading:			

Instructional Delivery	Observed	Not Observed	Comments
Reading Checkouts Usually peer reading after group reading (Level A – individual student reading after workbook) Start Time for Checkouts: **Pacing of Checkouts: about 10 min.**			
Verbal prompt given about maximum # of errors allowed for accuracy			
Charts posted for timed reading criteria for Rate and Accuracy			
Smooth transition to Peer Checkouts (partners assigned in advance, quick movement [not Level A])			
Student Folders & materials ready in advance (graphs, at least 1 timer, flashcards of missed words from previous lessons)			
Untimed reading by each partner - Part I of passage from today's lesson			
Timed reading by each partner – a specified, previous passage			
Student scores of timed readings recorded on charts/graphs (rate & accuracy)			
At least 2 students assessed by adult with positive & corrective feedback			
End Time for Checkouts:			
Workbook Start Time for Workbook: **Pacing of Workbook: about 10 min.**			
Teacher Directed Parts			
Individual Tests (oral reading)			
Teacher Directions & Independent Student Work			
Positive & Corrective Feedback given at end of lesson or at beginning of next lesson			
End Time for Workbook:			
Optional Use of Point System			

A Summary of a Meta-Analysis of the Effects of Training and Coaching on Teachers' Implementation

	Outcomes (% of Participants)		
Training Components	**Demonstrate Knowledge**	**Demonstrate Skills in a Training Setting**	**Use the New Skills in the Classroom**
Theory and Discussion	10%	5%	0%
…+ Demonstration in Training	30%	20%	0%
…+ Practice & Feedback in Training	60%	60%	5%
…+ Coaching in Clinical Setting	95%	95%	95%

Treatment Integrity Checklists Available

- Heartland Area Education Agency
  - http://www.aea11.k12.ia.us/idm/checkists.html

- **Direct Observation Checklists**
- The Six-Minute Solution: A Reading Fluency Program ©2007 REWARDS Multisyllabic Intermediate ©2006 & REWARDS Multisyllabic Secondary (Original) ©2000, 2005 Reading Success: Effective Comprehension Strategies (Foundations, Level A-C) ©2004, 2008 Reading Mastery I and II Rainbow ©1995, ,Reading Mastery I and II Classic ©2003, Reading Mastery I and II Signature, Reading Strand ©2008, Reading Mastery Fast Cycle Rainbow ©1995 & Reading Mastery Fast Cycle Classic ©2003 Read Naturally ©1991-1997 QuickReads: A Research-Based Fluency Program (Levels A-E) ©2002-2006 Phonics for Reading (Level 1) ©2002 First Grade Reading PALS Grades 2-6 Math PALS Grades 2-6 Reading PALS High School Reading PALS Kindergarten and 1st Grade Math PALS Kindergarten Reading PALS Great Leaps (3-5, 6-8, 9-12) ©1998 Great Leaps (K-2) ©1998 Math Skill-Building Effective Instruction Corrective Reading: Decoding (Levels A, B1, B2, C) ©1999 & Corrective Reading: Comprehension (Levels A, B1, B2, C) ©1999 Connecting Math Concepts Levels A-F ©2003
- **Permanent Product Checklist**
- The Six-Minute Solution: A Reading Fluency Program ©2007 REWARDS Intermediate ©2006 & REWARDS Secondary (Original) ©2000, 2005 Reading Success: Effective Comprehension Strategies (Foundations, Levels A-C) ©2004, 2008 Reading Mastery I and II Rainbow ©1995, Reading Mastery I and II Classic ©2003, Reading Mastery I and II Signature, Reading Strand ©2008, Reading Mastery Fast Cycle Rainbow ©1995 & Reading Mastery Fast Cycle Classic ©2003 Reading in the Content Areas (Levels A-D) Permanent Product Read Naturally ©1991-1997 QuickReads: A Research-Based Fluency Program (Levels A-E) ©2002-2006 Phonics for Reading (Level 1) ©2002 First Grade Reading PALS Grades 2-6 Math PALS Grades 2-6 Reading PALS High School PALS Kindergarten & 1st Grade Math PALS Kindergarten Reading PALS (K-PALS) Great Leaps (3-5, 6-8, 9-12) ©1998 Great Leaps (K-2) ©1998 Corrective Reading: Comprehension (Levels A, B1, B2, C) ©1999 Corrective Reading: Decoding (Levels A, B1, B2, C) ©1999 Connecting Math Concepts Levels A-F ©2003

Treatment Integrity Checklists Available

- **Oregon Response to intervention**
  - **http://www.oregonrti.org/node/139/**

- Eri Fidelity Checklist.pdf
- Harcourt Fidelity Checklist 1-2.pdf
- Observing a Storytown Classroom.doc
- Reading Mastery Fidelity Checklist.pdf
- Treasures Walk Throughs.doc
- Triumphs Fidelity Checklist.pdf
- Imagine It Instructional Checklist 2-3, 4-5.doc
- Read Well K and 1 Check Sheet.doc
- Five minute Walkthrough.doc
- Early Reading Intervention.pdf
- Fast-Track-Phonics-Fidelity-Checklist.doc
- Phonics for Reading Level 3.dpf
- Read Naturally-Power Reading.pdf
- Treasures-Fidelity-Checklist.doc
- Reading Instruction Observation Checklist.pdf

- Questions…

  Are these programs you use?

  Do you measure treatment integrity with the delivery of your programmed instruction?

  What would some benefits to measuring treatment integrity be?

Rubric

How to Construct a Treatment Integrity Protocol

Why a TI Protocol Rubric

- This rubric was created in an effort to guide the interventionist in developing his/her own treatment integrity protocol
- Research suggests that it is best to actively involve the interventionist in developing, implementing, and evaluating the treatment integrity protocol (Powers et al., 2005)
- NC school professionals reported a need for a guidance/sample tool when assessing TI (Deni, J., Foster, K., Schaftlein, K., Dimick, D., & Hoskins, M., 2012)

Elements of Treatment Integrity Rubric

1. Identify EBI
2. Consider level of exposure
3. Identify needed resources
4. Identify intervention elements
5. Develop TI protocol
6. Determine how progress monitoring data will be collected

Example

Cameron is a third grader having difficulty with single and double digit addition and subtraction problems. His teacher, Mrs. Smith, is concerned about his math skills and wants to help him succeed in class. Mrs. Smith consulted with her school psychologist, Mr. Jones, to develop a plan to help Cameron succeed. Mrs. Smith and Mr. Jones decided that the best intervention to use would be Incremental Rehearsal, using flashcards that had both single and double digit addition and subtraction math problems from 0-100. It was determined that Mrs. Smith's teacher aide would execute the intervention. They decided that the intervention should be implemented 4 times a week, for a 20 minute session during the course of 8 weeks. Mrs. Smith already has the flashcards in her classroom and a stopwatch for the teacher aide to use. Cameron would be progress monitored once a week, by the teacher aide, using AIMSweb MCOMP at the 3rd grade level. At the end of the 8 weeks Mr. Jones and Mrs. Smith agreed that the 4-point decision rule would be used to evaluate and interpret the progress monitoring data. Together they discussed and agreed on the importance and necessity of documenting TI. Mr. Jones volunteered to create a checklist for the intervention and conduct a direct observation once a week. Also, a self-report checklist was to be completed by the teacher aid. Lastly, Mrs. Smith and Mr. Jones examined each step of the intervention, deciding if any steps could be modified without harming the integrity of the intervention. It was decided that steps 1-4 were the only negotiable steps since they are only completed on the first day of the intervention. All other steps (5-16) were to be carried out as prescribed in the intervention. Permanent product data produced during the intervention would be the "discard", "known," and "unknown" decks of cards. To calculate the integrity of the intervention, Mrs. Smith and Mr. Jones decided to use a percentage formula to compute the total integrity of the intervention implementation.

Treatment Integrity Rubric

This is a rubric that was created in an effort to guide the interventionist in developing his/her own integrity monitoring protocol. Treatment integrity is the degree to which an intervention is implemented with accuracy and consistency. *It is essential to track the integrity of an intervention in order to make accurate conclusions about a student's response to the intervention.*

Directions: When creating an intervention plan, follow the guide below to construct an accompanying integrity monitoring protocol. Consider each section. Use the "Notes" column to fill in important information that will be necessary to include in the integrity monitoring protocol.

Research-based Intervention	
NCLB 2001 and IDEIA 2004 require schools to utilize research-based instructional programs and interventions (Roach & Elliot, 2008). Choose an intervention that is research-based and appropriate to the child's unique needs.	
Intervention:	
Exposure	
Exposure is the number, length, frequency, or duration of the intervention/ intervention session (Schulte, Easton, & Parker 2009).	
Question	**Notes**
1. How long will each intervention session last? (e.g., 30 minutes)	
2. How many times each week will the intervention session occur? (e.g., daily, 3 times per week)	
3. How many weeks will the intervention session be implemented relative to the goal? (e.g., 6 weeks)	

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Research-based Intervention	
NCLB 2001 and IDEIA 2004 require schools to utilize research-based instructional programs and interventions (Roach & Elliot, 2008). Choose an intervention that is research-based and appropriate to the child's unique needs.	
Intervention: Incremental Rehearsal in Math	
Exposure	
Exposure is the number, length, frequency, or duration of the intervention/ intervention session (Schulte, Easton, & Parker 2009).	
Question	**Notes**
1. How long will each intervention session last? (e.g., 30 minutes)	20 minutes
2. How many times each week will the intervention session occur? (e.g., daily, 3 times per week)	4x a week
3. How many weeks will the intervention session be implemented relative to the goal? (e.g., 6 weeks)	8 weeks

Resources	
Resources include the materials, staff members, and time the intervention requires.	
Question	**Notes**
4. What materials are required to implement the intervention and are these materials available? If not, how will the resources be obtained?	
5. Who is responsible for gathering the materials and setting up the intervention?	
6. Who will be responsible for implementing the intervention?	

Resources	
Resources include the materials, staff members, and time the intervention requires.	
Question	**Notes**
4. What materials are required to implement the intervention and are these materials available? If not, how will the resources be obtained?	Flashcards w/ addition & subtraction (0-100) Stopwatch (optional) Yes, cards are available in Mrs. Smith's room
5. Who is responsible for gathering the materials and setting up the intervention?	Mrs. Smith
6. Who will be responsible for implementing the intervention?	Teacher's aide

Intervention Elements	
Identify and understand the active ingredients of the intervention. Also, specify the allowable and prohibited changes. This step is key to successful use of the intervention (Powers, Blom-Hoffman, Clarke, Riley-Tillman, Kelleher, & Manz, 2005).	
Question	**Notes**
7. According to the evidence-based intervention (EBI), what are the essential steps to the intervention? These will be used to create an integrity checklist or script. (Clearly describe in observable terms).	
8. Are any of the essential steps negotiable? (i.e., there is some latitude on carrying out the steps).	
9. What, if any, permanent products will be produced as a result of the intervention?	

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Question	**Notes**
7. According to the evidence-based intervention (EBI), what are the essential steps to the intervention? These will be used to create an integrity checklist or script. (Clearly describe in observable terms).	All Steps (1-16) *See attached Incremental Rehearsal instructions*
8. Are any of the essential steps negotiable? (i.e., there is some latitude on carrying out the steps).	Steps 1-4 only implemented during first intervention session
9. What, if any, permanent products will be produced as a result of the intervention?	Discard, Known, and Unknown Decks of flashcards

Treatment Integrity Protocol	
The research recommends that different aspects of the intervention be monitored for integrity such as adherence, exposure, quality of implementation, and student understanding (Sanetti, & Kratochwill, 2009; Schulte, Easton, & Parker, 2009). The treatment integrity protocol will be used to help interpret the intervention outcomes.	
Question	**Notes**
10. What integrity method/ protocol will be used to evaluate the integrity of the intervention? *It is recommended to use multiple methods*. (e.g., self-report, script, direct observation)	
11. What format for rating the integrity will be used? (e.g., Likert scale, Yes/ No)	
12. Who is responsible for creating the integrity checklist?	
13. Who will monitor the integrity of the intervention? *It is recommended to have multiple informants*.	
14. How often will integrity data be collected?	
15. How will the integrity data be calculated? (e.g., percentage)	

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Question	**Notes**
10. What integrity method/ protocol will be used to evaluate the integrity of the intervention? *It is recommended to use multiple methods*. (e.g., self-report, script, direct observation)	Self-report & Direct Observation
11. What format for rating the integrity will be used? (e.g., Likert scale, Yes/ No)	Yes/No Checklist
12. Who is responsible for creating the integrity checklist?	Mr. Jones, School Psychologist
13. Who will monitor the integrity of the intervention? *It is recommended to have multiple informants*.	Mr. Jones, Teacher's Aide, Mrs. Smith
14. How often will integrity data be collected?	1x week (Direct Observation) & 4x week (Self-Report)
15. How will the integrity data be calculated? (e.g., percentage)	Percentage

Progress Monitoring	
Progress monitoring is the process of frequently collecting and analyzing information regarding student behavior/ learning in order to assess progress towards a goal. It informs us if the intervention is effective and it allows modifications to occur (National Center on Progress Monitoring, 2006).	
Question	**Notes**
16. How often will progress monitoring take place? (e.g., once per week)	
17. What assessment tool will be used to progress monitor? (e.g., R-CBM)	
18. Who will be responsible for progress monitoring?	
19. What curriculum-based evaluation decision-making rule will be used to interpret the data? (e.g., 4 point decision rule)	

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Question	**Notes**
16. How often will progress monitoring take place? (e.g., once per week)	1x week
17. What assessment tool will be used to progress monitor? (e.g., R-CBM)	AimsWeb MCOMP probes at 3rd grade level
18. Who will be responsible for progress monitoring?	Teacher's aide
19. What curriculum-based evaluation decision-making rule will be used to interpret the data? (e.g., 4 point decision rule)	4-point decision rule

Final Product

TI Checklist
Incremental Rehearsal

Date: _____ Name of Interventionist: _____

Start Time: _____ End Time: _____ Lesson #: _____ Name of Student: _____

Intervention: _____ **Circle:** Self Observer

Directions: During the intervention/observation, place an "X" in the "yes" (or "no") column if the step is completed/observed (or not). Tally the number of "Yes" and calculate the integrity of each part and the overall integrity.

Note: If the step is not applicable place an "N/A" in the "Yes" column. Do not calculate this in the integrity formula.

Part 1: Materials

Materials	Yes	No
Math Flash Cards		
Stopwatch *(optional)*		

Part 2: Review of math facts (*only done once at initial intervention session*)

Steps	Checklist	Yes	No
1	Reviewed all math-fact flash cards with student. Any math facts that the student answered correctly within two (2) seconds were placed in the "known" pile.		
2	Any math facts that the student answered incorrectly/not answered within two (2) seconds were placed in the "unknown" pile.		
3	Randomly selected nine (9) cards from the pile of "known" math facts making the "known facts" deck.		
4	Other remaining "known" math fact cards placed in a discard pile never to be used again.		

Adapted from Heatland Area Education Agency (2006)

Part 3: Continuous Intervention Steps

Steps	Checklist	Yes	No
5	Took one (1) card from the "unknown" facts deck and read math fact on card aloud, providing the answer to student.		
6	Prompted student to read off and answer the same unknown fact as mentioned above.		
7	Paired one math fact from the "known fact" deck with the unknown math fact mentioned in previous two (2) steps.		
8	Showed "known fact" and "unknown fact" in sequence to student prompting them to read each card and provide the correct answer.		
9	Indicated that the student was successful on a problem if s/he provided the correct answer within two (2) seconds.		
10	If student made an error or hesitated for longer than two (2) seconds, you read the math fact on the card aloud, gave the correct answer, and prompted student to read off the same unknown problem and provide the correct answer.		
11	Continued review sequence until the student answered all cards within two (2) seconds without errors.		
12	Repeated the sequence taking another card from the "known facts" deck to add to the expanding collection of math facts being reviewed (making the "review deck").		
13	Prompted student to read off and answer the whole series of math facts in the "review deck" beginning with the unknown fact and moving through the growing series of known facts that follow.		
14	Review deck expanded to one (1) "unknown" math fact followed by nine (9) "known" math facts.		
15	Last "known" math fact added to the "review" deck is discarded to the "discard" deck.		
16	Previously "unknown" math fact is now treated as a "known" math fact and is included as the FIRST item in the nine (9) card "known" fact deck for next time.		

Summary

Steps	# of Yes	Total # Possible	%
1-4		4	
5-16		11	
Overall Integrity		15 or 11	

Adapted from Heartland Area Education Agency (2006)

Practice!

- Michele is a 3rd grader who is demonstrating difficulty with reading fluency, especially with decoding at an acceptable rate. Michele's teacher, Mr. Calhoon, describes her reading as choppy. Her AIMSweb benchmark scores indicate that she is reading at a mid-second grade level. Mr. Jones completed a Survey Level Assessment (SLA) confirming that she is reading at a mid-second grade level. Mr. Calhoon would like for Michele to succeed in reading and schedules a meeting with the school's student support team. After meeting with the student support team, it was determined that Mr. Calhoon was going to do Repeated Readings (an EBI) with Michele 3 times a week for 20 minutes during her paired reading time using leveled books from his personal library. The books would be at Michele's current reading level. He would continue this for 6 weeks and progress monitor using the Oral Reading Fluency or R-CBM probe once a week on Fridays during the class' independent reading time. The student support team uses the four-point decision rule to determine progress. The principal has asked you to work with Mr. Calhoon to create the integrity protocol for this intervention.

- In your group complete the Treatment Integrity Rubric to help develop the integrity protocol for this intervention.

Progress Monitoring

- Why it is important
- Not just a general education function
- Without this information, how do you know what you are doing is working for the student?
- EC services are the most intensive intervention – need to be sure the student is responding

Questions & Comments

- **Please feel free to contact us by email at denijr@appstate.edu with any additional questions or comments**
- **Thank you for attending!**

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